

**Notice of Allowability**

Application No.

10/603,937

Examiner

Hai C. Pham

Applicant(s)

MIYAGAWA, ICHIROU

Art Unit

2861

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed 07/14/06.
2. ☒ The allowed claim(s) is/are 11-16, 18, 20 and 22-27.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

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| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                      |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|  | 9. <input type="checkbox"/> Other _____.   |

### **REASONS FOR ALLOWANCE**

1. The following is an examiner's statement of reasons for allowance: claim 11 is patentable over the prior art of record because of the specific configuration of the exposure apparatus, which comprises a light source for ejecting a light beam emitted in a broad area for at least a main-scanning direction, a condensing optical system for condensing the light beam emitted from the light source on the recording medium, and an array refracting element that includes at least two or more pairs of refracting members, wherein each of the at least two or more pairs of refracting members is one unit having a unit surface shape dividing one light beam into two light beams by ejecting one incident light beam toward different positions, the array refracting element being disposed between the light source and the recording medium so that a direction, in which the at least two or more pairs of reacting members are arranged in an array shape, is substantially parallel to the broad area direction of the light beam emitted from the light source, wherein the array refracting element is configured to arrange the at least two or more pairs of refracting members in at least two pair units in an array shape in a direction orthogonal to the light beam dividing direction. The combined limitations as currently claimed are not taught by the prior art of record considered alone or in combination.

Claim 14 is patentable over the prior art of record because of the specific configuration of the exposure apparatus, which comprises a light source for ejecting a light beam emitted in a broad area for at least a main-scanning direction, a condensing optical system for condensing the light beam emitted from the light source on the

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recording medium, and an array diffracting element that includes at least two or more pairs of refracting members, wherein at least one of the refracting members in each of the at least two or more pairs of refracting members is formed as a diffracting member and each of the at least two or more pairs of refracting members is one unit having a unit surface shape dividing one light beam into two light beams, the array diffracting element being disposed between the light source and the recording medium so that a direction, in which the at least two or more pair of refracting members are arranged in an array shape, is substantially parallel to the broad area direction of the light beam emitted from the light source, and wherein the at least two or more refracting members are arranged in at least two pair units in an array shape in a direction orthogonal to the light beam dividing direction. The combined limitations as currently claimed are not taught by the prior art of record considered alone or in combination.

Claims 12-13, 15-16, 18, 20 and 22-27 are allowed because they are directly or indirectly dependent from claims 11 and 14 above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai C. Pham whose telephone number is (571) 272-2260. The examiner can normally be reached on M-F 8:30AM - 5:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vip Patel can be reached on (571) 272-2458. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



HAI PHAM  
PRIMARY EXAMINER

September 21, 2006